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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,475	12/20/2005	Rifat Ata Mustafa Hikmet	NL030764	8186
24737 7590 07/10/2008 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				
EXAMINER				
PATANKAR, ANEETA V				
ART UNIT		PAPER NUMBER		
2627				
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07/10/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/561,475

**Applicant(s)**

HIKMET ET AL.

**Examiner**

ANEETA PATANKAR

**Art Unit**

2627

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-850)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 12/20/2005

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-3 and 5-18** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,353,247 to *Feris*.

As to **claim 1**, *Feris* discloses an optical information carrier for carrying information to be read out by means of an optical beam comprising: at least one information layer containing material having Bragg reflector characteristics for reflecting light of said optical beam, when said material is heated above a reflectance threshold temperature by said optical beam (Fig. 7, column 9, lines 13-68, column 10, lines 1-28).

As to **claim 2**, *Feris* discloses an optical information carrier characterized in that said material contains liquid crystal (Fig. 5, column 3, lines 55-59).

As to **claim 3**, *Feris* discloses an optical information carrier characterized in that said material contains cholesteric liquid crystal (Fig. 5, column 3, lines 55-59).

As to **claim 5**, *Feris* discloses an optical information carrier characterized in that said material contains alternating layers (15, 16) with different refractive indices (Fig. 1, 2, column 4, lines 59-68, column 5, lines 1-48).

As to **claim 6**, *Feris* discloses an optical information carrier characterized in that each layer contains block copolymers (Fig. 7, 8, 10, column 9, lines 13-68, column 10, lines 1-13).

As to **claim 7**, *Feris* discloses an optical information carrier characterized by at least two information layers (6) and at least one spacer layer (7) separating said at least two information layers and being transparent for said optical beam (Fig. 2, 7, 8, column 8, lines 42-50).

As to **claim 8**, *Feris* discloses a read-out device for reading out information from an optical information carrier, which comprises at least one information layer containing material having Bragg reflector characteristics for reflecting light of an optical beam, when said material is heated above a reflectance threshold temperature, comprising: a light source emitting said optical beam, which can be directed onto said optical information carrier (Fig. 12, column 14, lines 12-34), producing a temperature above said reflectance threshold temperature (Fig. 11, column 13, lines 53-68, column 14, lines 1-4).

As to **claim 9**, *Feris* discloses a read-out device characterized by focusing means for focusing said optical beam on a focal spot having a temperature above said reflectance threshold temperature on said at least one information layer (Fig. 7, column 9, lines 13-68, column 10, lines 1-28).

As to **claim 10**, *Feris* discloses a read-out device characterized by at least one detector for detecting light reflected by said material having Bragg reflector characteristics (Fig. 10, column 12, lines 40-68).

As to **claim 11**, *Feris* discloses a writing device for writing information on an optical information carrier, which comprises at least one information layer containing material having Bragg reflector characteristics comprising: a light source emitting an optical beam to be directed onto said optical information carrier for changing reflection characteristics of said material (Fig. 11, column 13, lines 53-68, column 14, lines 1-4).

As to **claim 12**, *Feris* discloses a writing device characterized in that said optical beam produces a temperature above a degrading temperature threshold of said material for degrading said Bragg reflector (Fig. 7, column 9, lines 13-68, column 10, lines 1-28).

As to **claim 13**, *Feris* discloses a writing device, characterized by focusing means for focusing said optical beam on a focal spot on said at least one information layer (Fig. 7, column 9, lines 1-13, column 10, lines 1-28).

As to **claim 14**, *Feris* discloses a method for reading out information from an optical information carrier, which comprises at least one information layer containing material having Bragg reflector characteristics for reflecting light of an optical beam, when the material is heated above a reflectance threshold temperature comprising the steps of: directing said optical beam on said information carrier for heating said material above said reflectance threshold temperature (Fig. 11, column 13, lines 53-68, column 14, lines 1-4), detecting signals being reflected by said heated material and evaluating said detected signals (Column 6, lines 22-48).

As to **claim 15**, *Feris* discloses a method characterized by focusing an optical beam on a focal spot in one of said information layers for heating said material above said reflectance threshold temperature (Fig. 11, column 13, lines 53-68, column 14, lines 1-4).

As to **claim 16**, *Feris* discloses a method for writing information on an optical information carrier, which comprises at least one information layer containing material having Bragg reflector characteristics comprising the steps of: directing an optical beam on said optical information carrier for changing reflection characteristics of said material (Fig. 1, column 9, lines 13-68, column 10, lines 1-28).

As to **claim 17**, *Feris* discloses a method characterized by heating said material above a degrading temperature threshold of said material degrading said material (Fig. 11, column 13, lines 53-68, column 14, lines 1-4).

As to **claim 18**, *Feris* discloses method characterized by focusing said optical beam on a focal spot on said at least on information layer for heating said material above said degrading temperature threshold (Fig. 7, column 9, lines 13-68, column 10, lines 1-28).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,353,247 to *Feris* in view of U.S. Patent Pub. No. 2006/0072438 A1 to *Nishino et al.*

*Feris* discloses the invention of claim 1 as set forth in the above rejection under 35 U.S.C. 102.

As to **claim 4**, *Feris* is deficient in disclosing an optical information carrier characterized in that said material contains liquid crystal in the blue phase.

However, *Nishino* discloses an optical information carrier characterized in that said material contains liquid crystal in the blue phase (Paragraphs 0079-0080).

At the time of invention, it would have been obvious to a person of ordinary skilled in the art to have created an optical disk as taught by *Feris* that contains cholesteric liquid crystal layers as well as liquid crystal in the blue phase as taught by *Nishino*. The suggestion/motivation would have been in order to create a polydiacetylene layer on the disk to increase the sensitivity with which information is read or written from/on an optical information storage medium by utilizing the multiphoton absorption phenomenon. (*Nishino*, Paragraph 0016, 0079).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANEETA PATANKAR whose telephone number is (571)

272-9773. The examiner can normally be reached on Monday-Thursday 8-5, Second Friday, 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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